



Electrifying New Markets For a Sustainable Future

Phanes Group Corporate Brochure

Introducing Phanes Group



Phanes Group is an international solar energy developer, investment and asset manager strategically headquartered in Dubai, UAE.

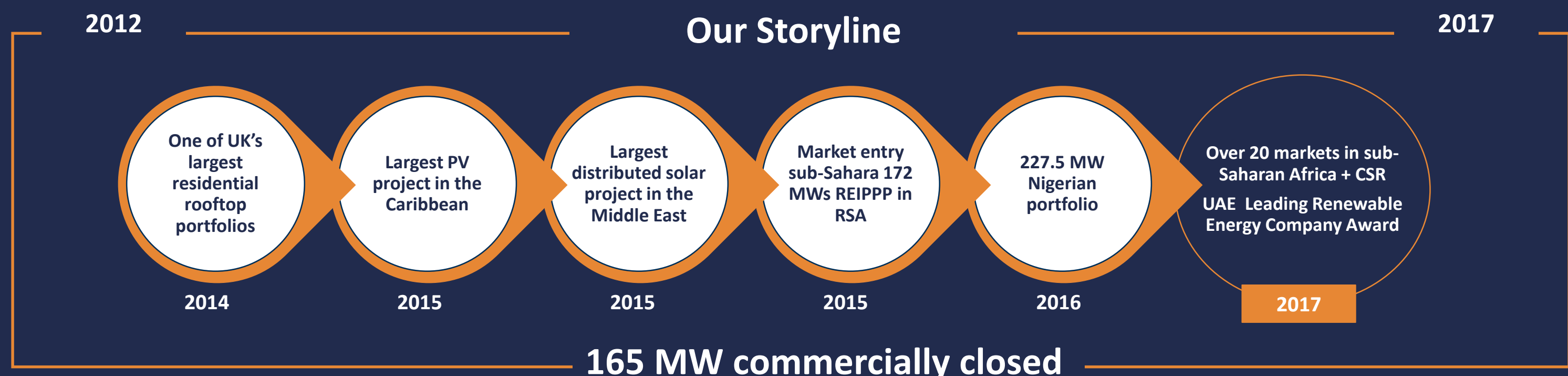
The group was founded in 2012, making a transition from early successes as an advisory-focused consultancy into an end-to-end PV solar player overseeing the complete solar value chain. Today, we have a growing portfolio of solar investments and developments spanning multiple geographies, with a distinct focus on new markets – particularly “MENA plus” (Middle East, North Africa, Central Asia) and sub-Saharan Africa.

Cumulatively, the company’s global clean power contribution is in excess of 70 MW, with a further 1.5 GW in the pipeline – including 227.5 MW of grid connected PV solar in Nigeria across three different projects. The first of the three Nigerian projects, in the Sokoto region, is backed by one of the Nigerian government’s 14 first solar PPAs. In addition, the group is developing off-grid solar solutions to ensure communities across the region have access to a stable and clean energy supply.

Our team has substantial experience in capital markets, renewables development, risk management, and asset construction. Our integrated approach delivers clean and affordable energy with stable long-term financial yields to economies that need it most.

As a new markets specialist we focus on growing markets where the agility offered by our integrated business model and independency gives us a competitive advantage. We are able to adapt to fast-changing environments where the necessary regulatory frameworks and physical infrastructure are often still being developed.

The effectiveness of our business model has been demonstrated through the delivery of landmark projects around the world. They are proof that tightly intertwining financing and engineering expertise are the key to making projects bankable. Close coordination across the project value chain gives the flexibility and speed necessary to succeed in new and growing markets.





**A Track Record of Growth,
Achieving Proof of Concept**



2012

Year of
Phanes Group's
establishment



3 Years

The company has
achieved profitability
for the past 3 years



35+

Full-time
employees
on the team



20+

Nationalities
within
the team



1.5 GW

Pipeline under
development or at the
planning stage



25+

Number of countries
represented in project
pipeline



4

4 continents with
projects completed or
being delivered



70+ MW

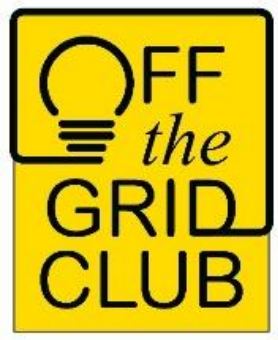
Currently installed
capacity
to date



\$250 mln

Projects
commercially closed to
date

Partner Organizations



Awards & Recognition



**S&P GLOBAL PLATTS
GLOBAL ENERGY AWARDS
2017 FINALIST**



*"Finalist
Business of the Year
2017"*



*"Highly Commended Finalist
Renewables Category
2017"*



*"PV Solar Company
of the Year
UAE, 2017"*



*"Leading UAE
Renewable Energy
Company, 2017"*

Our Approach: End-to-End Development & Delivery

Phanes Group believes in a holistic approach to solar, uniting under one roof the competencies and expertise necessary to oversee the entire solar project value chain – from Project Selection & Development, to Construction & Financing, to Asset Management & Monetization.



Project Selection & Development



Construction & Financing



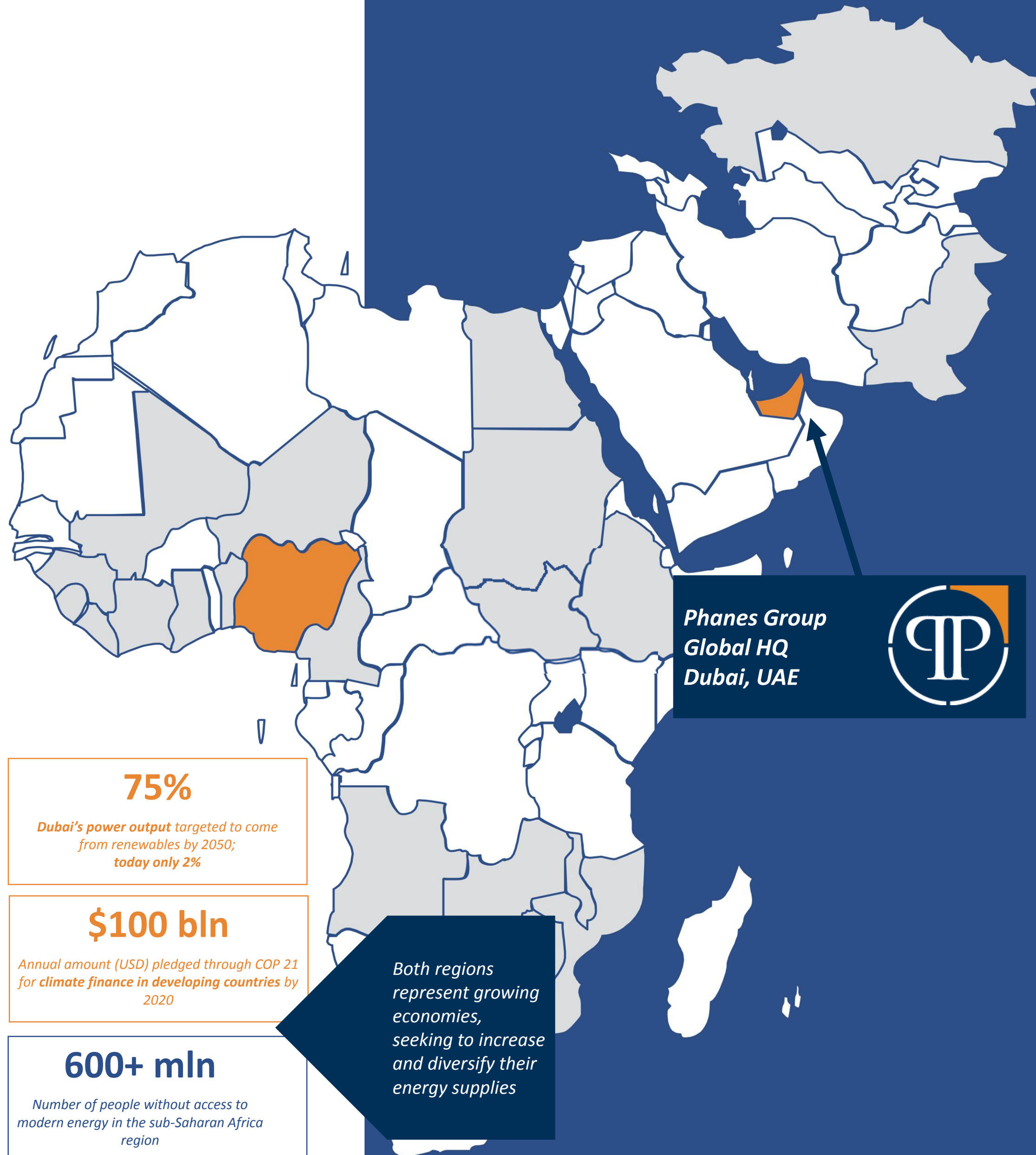
Asset Management & Monetization

Value Drivers

- | | | |
|--|--|--|
| ▪ <i>Local Partners</i> | ▪ <i>Competitive Transfer Pricing</i> | ▪ <i>De-Risked Assets</i> |
| ▪ <i>Exclusive Asset Pipeline</i> | ▪ <i>Faster Execution</i> | ▪ <i>High Yield Assets</i> |
| ▪ <i>Development to Bankability</i> | ▪ <i>Aligned Equity Investor</i> | ▪ <i>Flexible Exit Routes</i> |
| ▪ <i>Accelerate Pipeline Development</i> | ▪ <i>Access to Pool of Capital</i> | ▪ <i>Economies of Scale on Asset Management Side</i> |
| ▪ <i>Faster Execution</i> | ▪ <i>Purchasing & Execution Competence</i> | |
| ▪ <i>Design Competence</i> | | |

Bringing Clean Energy to Economies That Need it Most

Our focus is on “MENA plus” and sub-Saharan Africa – two regions with growing economies seeking to expand and diversify their energy sources. Solar energy provides a unique, sustainable solution to the challenge of energy access, which remains a key barrier to the economic and social development of these regions.



Phanes Group
Global HQ
Dubai, UAE



Middle East, North
Africa, Central Asia

With the “MENA plus” region’s energy consumption expected to continue to grow over the next two decades, renewables have become an important source of alternative energy to diversify the region’s energy mix. As “MENA plus” nations have some of the world’s highest levels of solar irradiation, the region is especially well-placed to benefit from solar energy.

75%

Dubai’s power output targeted to come from renewables by 2050; today only 2%

\$100 bln

Annual amount (USD) pledged through COP 21 for climate finance in developing countries by 2020

Both regions represent growing economies, seeking to increase and diversify their energy supplies

Sub-Saharan
Africa

We maintain a strategic focus on sub-Saharan Africa, where in many areas, solar energy represents a unique and sustainable solution for delivering clean, reliable, and affordable power to address the challenge of energy access. This remains a major barrier to the economic and social development of many African nations.

600+ mln

Number of people without access to modern energy in the sub-Saharan Africa region

37%

Average electrification rate; two out of three people without electricity access

Case Study (Distributed Small-Scale)

UK Housing Association

Portfolio



- One of the UK's largest residential rooftop PV solar systems in its sector
- Simultaneous management of multiple stakeholders across multiple sites within a market in transition

A foundational project in setting Phanes Group's distributed approach

- Total capacity: 10.5 MW
- Homes served: 3,500
- Annual production: 6,540 MWh
- Average annual savings per household: \$260+



Case Study (Utility-Scale)

Monte Plata Solar Plant

- The Caribbean's largest PV solar plant, in line with the government of the Dominican Republic's target for 25% renewables generation by 2025
- Proof-of-concept for our integrated approach to deliver large-scale projects in dynamic growth market environments



Large-scale economic, social, and environmental impact, supporting the Dominican Republic's national development

- Total capacity: 67.7 MW (on completion)
- Phase I complete (33.4 MW), Phase II construction start in 2018
- Annual production: 50,000 MWh
- UN Gold Standard Accredited, Atabey Award Winner

Case Study (Distributed Industrial)

DP World Solar

Power Programme



- The Middle East's largest distributed solar project, awarded competitively against more than 50 companies
- Key project under Dubai's net-metering scheme, serving as a blueprint for the roll-out of distributed industrial solar for the region



Demonstrating a viable way forward in making Dubai a global leader of clean energy & clean economies

- Total capacity: 23.2 MW
- 88,000+ solar panels across 60+ rooftops
- 25,000 tons of CO2 saved every year
- Accredited under UN Component Project Activities for Small-Scale Solar in UAE
- Key project under the Shams Dubai net-metering scheme

A Focus on Phanes Group's Project Execution Team

Oryx Solar System Solutions LLC

Launched in 2016, Oryx Solar System Solutions LLC is Phanes Group's Project Execution division – consisting of a highly experienced international team of engineering, design, construction, and project management experts for the construction and execution of PV solar projects. It provides Phanes Group with the competence to oversee the implementation of projects, ensuring quality and efficiency with tight risk management.



Tackling the Challenges of Distributed Solar with the DP World Solar Power Programme

- 25 independent projects, each with single Points of Connection (POC)
- 12 different building profiles, with 6 different roof types
- Including the region's biggest single-site rooftop (2.6 MW)
- Major civil works through heavy industrial zone and 24/7 traffic flow
- Parallel work on up to 12 projects
- TUV Nord inspection plus 600 inspections by civil and electrical authorities

Case Study

(Sub-Saharan Africa)

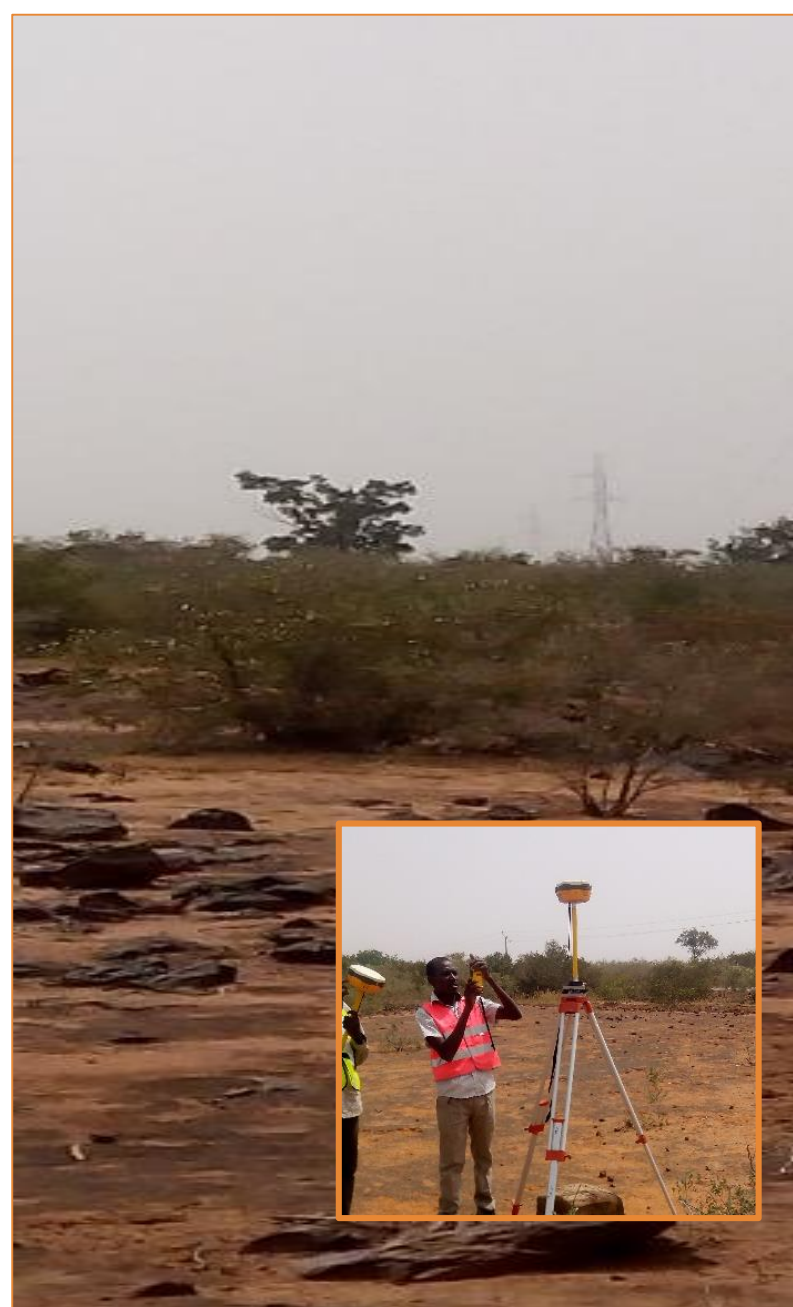
Nigeria Portfolio

- Phanes Group entered the sub-Saharan Africa solar market in 2016, acquiring and commencing development on three ground-mounted utility-scale PV projects in Nigeria, totaling 227.5 MW



Mobilizing for the roll-out of solar for sub-Saharan Africa

- The Sokoto Solar Plant (60.5 MW), is supported by 1 of the 14 first solar PPA's signed with the government of Nigeria
- Contributing to Nigeria's national ambitions to generate 2,000 MW of power from renewables by 2020
- Close involvement with local communities to deliver projects with a positive and sustainable social & environmental impact

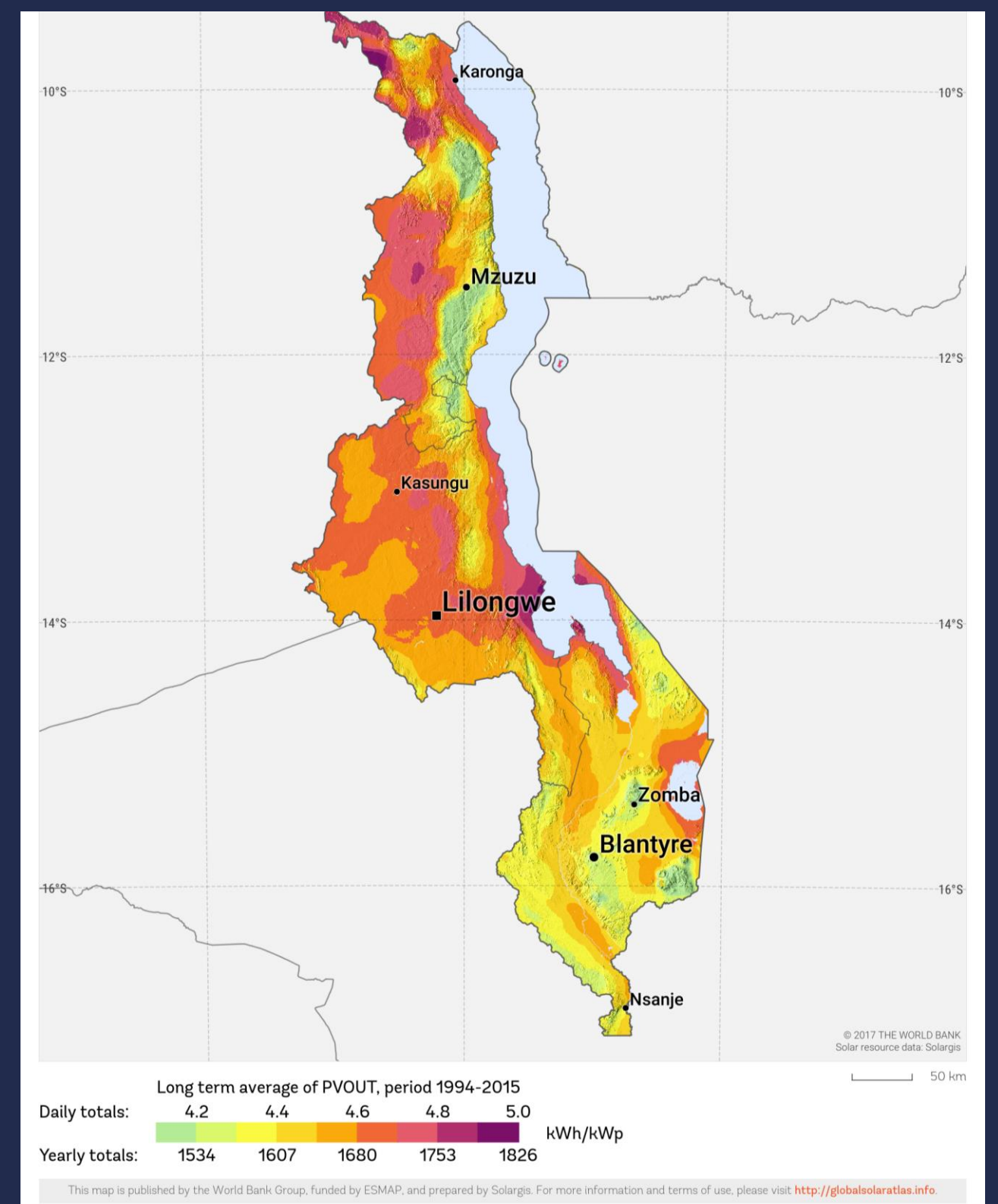


Case Study

(Sub-Saharan Africa)

Nkhotakota, Malawi

- In May 2017, Phanes Group was selected by the Electricity Supply Corporate of Malawi (ESCOM) as one of three companies to win a tender to develop solar projects totaling 70 MW across the country. Significantly, this was Malawi's first competitive tender within the power sector
- Phanes Group has since been developing a 26 MW ground-mounted PV solar project in the town of Nkhotakota, located in Malawi's Central Region. The development will provide power to the national grid under a Power Purchase Agreement (PPA) with ESCOM
- The project supports a significant push by the government to strengthen Malawi's electricity infrastructure. The new capacity added will contribute to the government's target of increasing power access to 30% by 2030



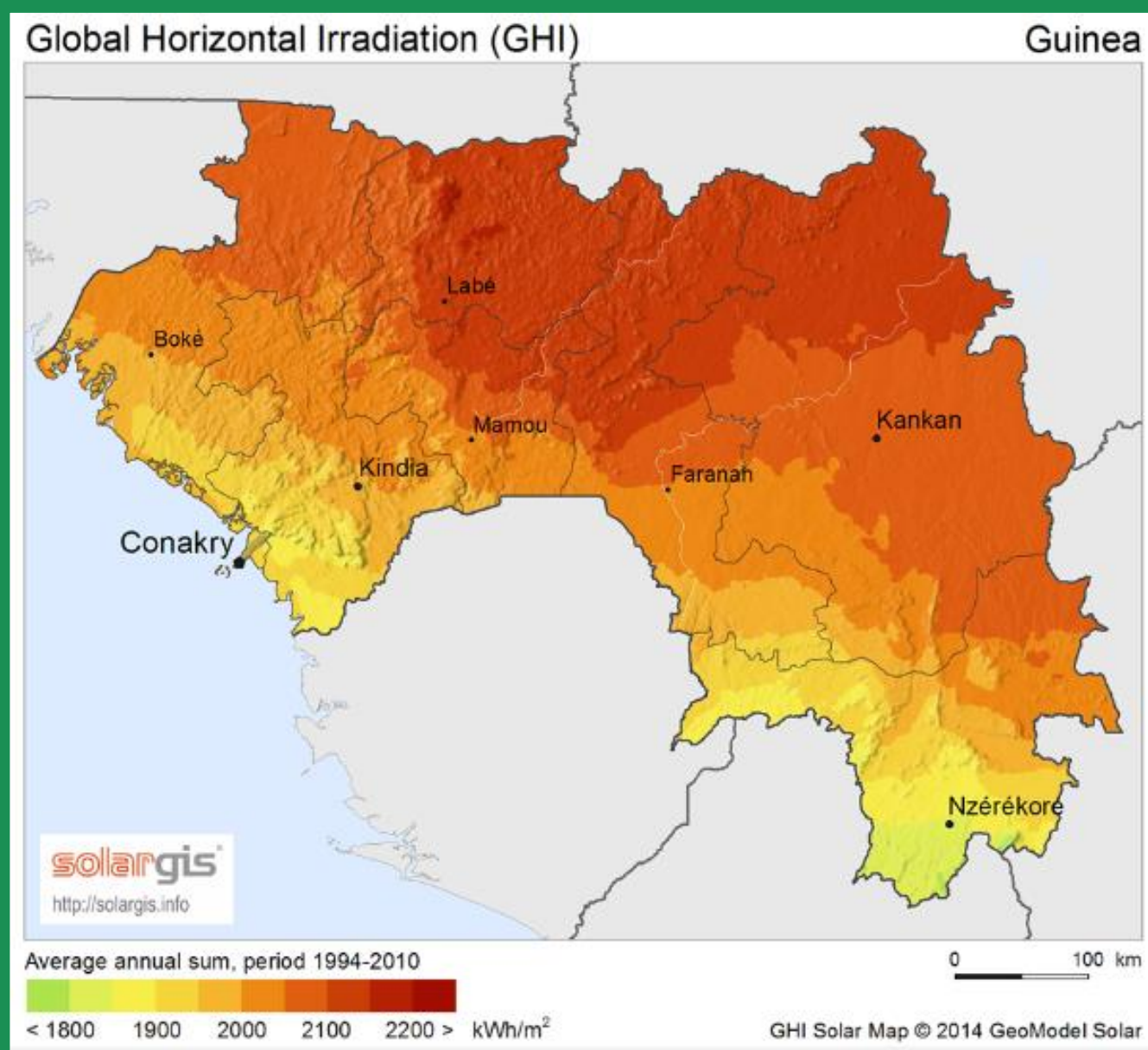
Case Study

(Sub-Saharan Africa)

Guinea, Coyah



- In the context of a significant power supply deficit, and one of the lowest electrification rates in the world (12%), the government of Guinea has set the development of its power sector as a priority for the country's economic growth
- Renewables (especially solar) represent a particularly well-suited solution for the country, given its rich natural irradiation (approximately 4.8 kWh/m² per day)
- In line with this direction, Phanes Group is currently developing a portfolio of solar projects in Guinea, having signed an MoU with the government of Guinea in April 2017
- A key project is the Coyah Solar Plant, a 50 MW grid-connected plant located in the country's Western region

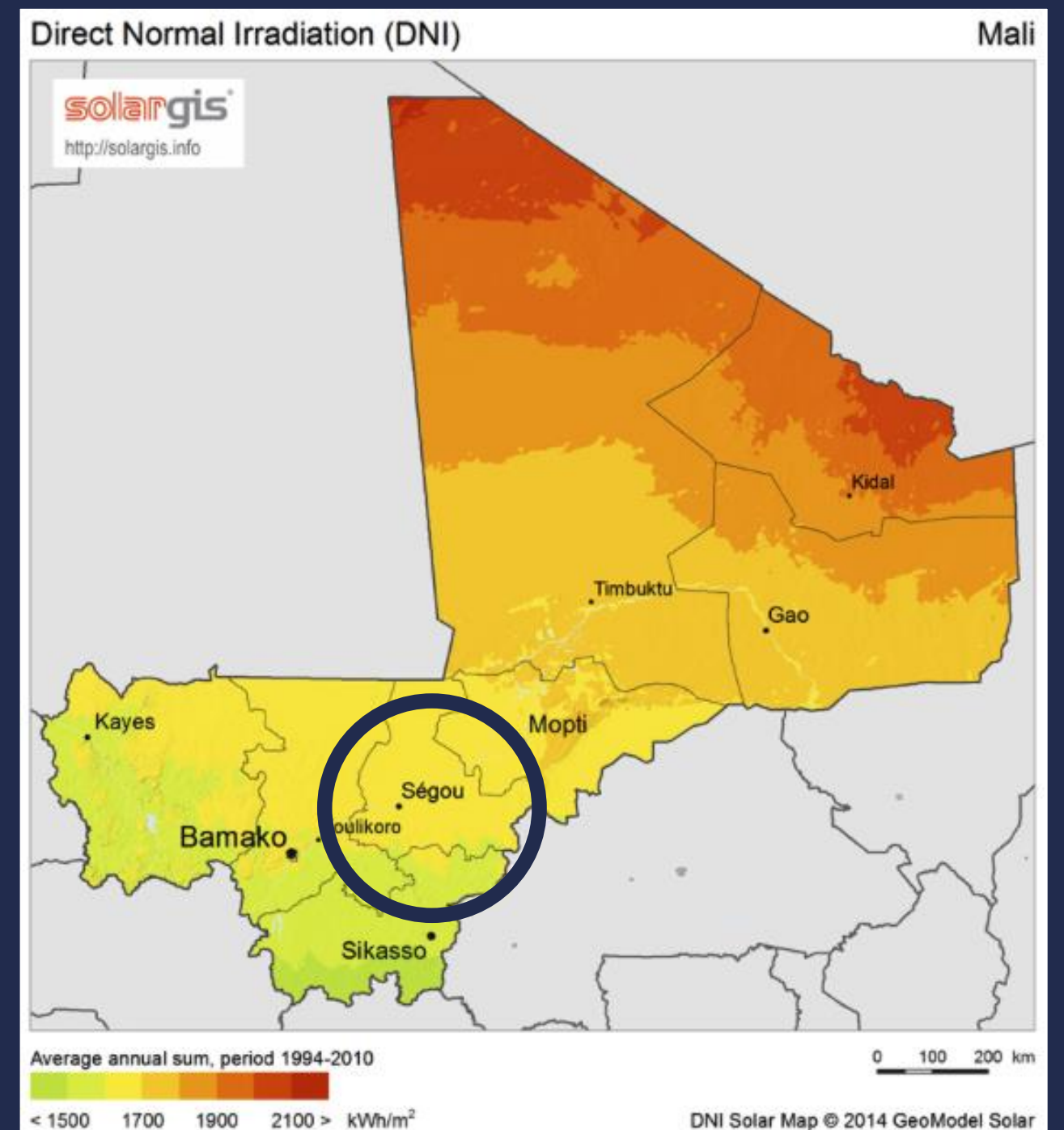


Case Study

(Sub-Saharan Africa)

Mali, Bla

- Though Mali has made significant progress in its power sector in the last 10 years, overall access to power remains low – with an electricity access rate of approximately 27% and demand growing at 10% annually
- With renewable energy also representing a strong solution for the country's needs, Mali has key assets within its institutional and political framework in place for its development – notably a National Strategy for the Development of Renewable Energy
- In February 2018, Phanes Group has signed an MoU with Mali's Ministry of Energy to develop a PV project in the country's Ségou Region
- Project capacity is targeted for 75 MW, and feasibility studies are currently in progress (grid, environmental, evacuation)



Case Study

Rural Electrification)

Boki Pilot Project



■ In Boki, a 28 kWp mini-grid in the village serves as a primary source of electricity for communal buildings – connecting:

- 1 school
- 1 health center
- 1 mosque
- 70 houses
- 4 streetlights in the town square
- 50 individual solar home systems

Phanes Group has launched a rural electrification initiative in 2017. As a pilot project, we electrified Boki village in Niger, implementing our modular system. Coming from a utility perspective we aim to electrify entire villages instead of single households. The system can be customized to each village's needs by combining mini-grids, solar home systems and containerized solutions like community spaces, schools or medical facilities.

In Niger, we will be electrifying up to 1,000 villages in stages throughout the next three years. The Boki pilot is fully operational and serves as a blueprint for Phanes Group's wider off-grid strategy.



Bringing Positive Impact to the Community

The Boki pilot project brings essential electricity and infrastructure to support improved quality of life, while strengthening the village's educational and medical capabilities, and allowing for increased income generating activities.



Education

Prior to the Boki Pilot Project, children could only attend classes in the daytime, which would often be cancelled in cases of extreme heat. With adequate lighting, children are now able to learn in the evening as well.



Entrepreneurship

The project has enabled the creation of business supporting the local economy. A daily night market has been started in the village, along with a welding shop, and various household operations such as the selling of cold water and ice.



Healthcare

The local medical center can now continue operating at night, and is supported with the necessary power for critical equipment such as refrigerators for vaccines and other medication.



Quality of Life

The installation of streetlights has increased mobility across public spaces in the evening, and power is now available for household electronics such as televisions, mobile phones, and fans. Fifteen refrigerators have also been installed in the village, supporting access to fresh food throughout the day.

Corporate Social Responsibility (CSR)

At the Heart of Our

Business Model

Since our founding, we have been a company driven by responsible action. As our footprint and overall business expands, we are committed to creating a positive social and environmental impact in line with our project reach. We place a particular emphasis on the potential of our projects to improve livelihood within the communities we serve.

In line with our mission to electrify new markets, we are focusing heavily on rural electrification initiatives that take advantage of the powerful opportunity to pair our core activities in clean energy with the provision of other complementary resources. Our Boki pilot project is a strong example of this strategy.

Finally, we've seen the need to empower local talent in the markets where we're active – those who are best placed to understand the requirements of their communities. With this in mind, we launched the Phanes Group Solar Incubator in 2017. Working with top tier partners, the initiative supports promising local developers with strong PV projects and CSR concepts.



Join Us

Careers at

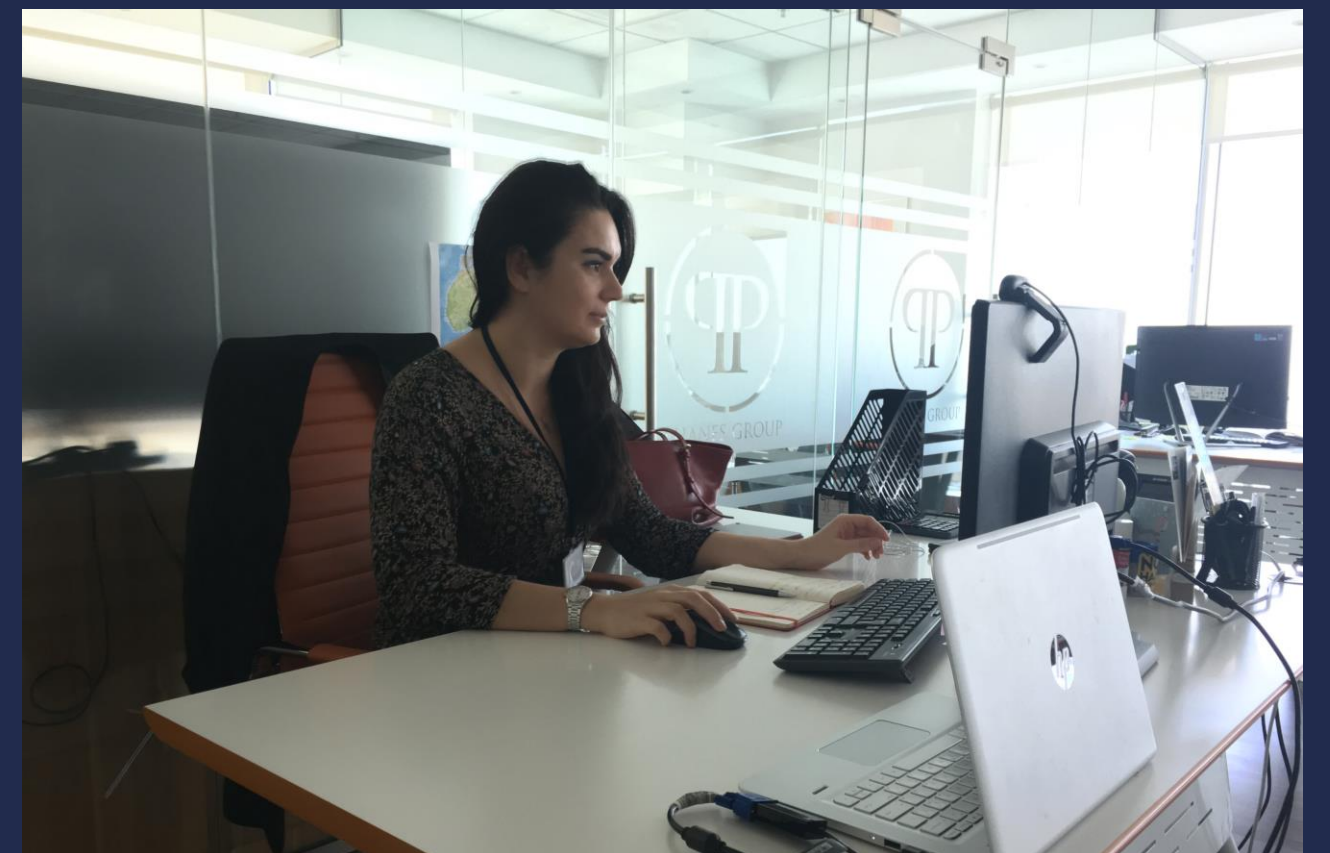
Phanes Group

When we describe Phanes Group as a holistic, integrated solar provider that serves the entire value chain, we are referring to the people who make up the company's in-house expertise.

We are always interested in motivated and qualified people who are looking for a new challenge. If you think you have what it takes to contribute to our team and our company's success please get in touch.

Why join us?

- You will be trusted with challenging and exciting PV solar projects paired with the right support to deliver them successfully
- You will gain in-depth growth market experience in our focus markets, "MENA plus" & sub-Saharan Africa
- You will experience a stimulating day- to- day work environment driven by creative thinking, where each team member's initiatives are heard and valued
- You will feel proud of what you do – electrifying new markets through sustainable clean energy



*Visit our careers website to see
latest open positions:*
www.phanesgroup.com/careers

A Clear Strategic Roadmap

To Become a Leading IPP

In MENA & Sub-Saharan Africa

Milestones: Projects

Securitized 30 MW
portfolio

1st UK rooftop
project

Monte Plata
construction

Africa market
entry

||| 2012

|||||||

2013

|||||||

2014

|||||||

2015

Advisory
focus, capital
markets

Added
technical
department

Added
project
development

Milestones: Corporate



Pipeline exceeds
1,000 MW

Project wins:
Ghana, Guinea
Conakry, Malawi

UK portfolio
complete

DP World
construction

Roll-out of Rural
Electrification Phase 1
in Niger

Monte Plata
Phase 1 complete

Nigeria
portfolio

||||||| 2016

||||||| 2017

|||||||

2018 & Beyond

Strengthened
balance
sheet

Added
asset construction

Added Nigeria
office

- IPP Business Model
- A leading company in "MENA plus" & sub-Saharan Africa
- Wide-scale roll-out of rural electrification initiatives

Contact Us

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